## WHAT IS CLAIMED IS:

1. A dialysis machine comprising:

a preparation device for preparing dialysis solutions, the preparation device including a detector device, a first connection and a second connection, first and second interchangeable storage containers for solution ingredients, and a first connector for connecting the first storage container to the first connection and a second connector for connecting the second storage container to the second connection, the first connector or a connecting tube of the first storage container having an identifier detectable by the detector device.

- 2. The dialysis machine as recited in claim 1 wherein the first storage container is a solution bag, the solution bag including the connecting tube, the first connector being provided at an end of the connecting tube.
- 3. The dialysis machine as recited in claim 1 wherein the identifier is provided at a predetermined position on the first connector, and the detector device is capable of detecting the type and the position of the identifier.
- 4. The dialysis machine as recited in claim 1 wherein the identifier includes a bar code.
- 5. The dialysis machine as recited in claim 4 wherein the bar code is arranged on the first connector so that bars of the bar code run circumferentially around the connector.
- 6. The dialysis machine as recited in claim 1 wherein the identifier includes information on a type and volume of the solution ingredients from the storage container.

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- 7. The dialysis machine as recited in claim 1 further comprising an analyzer unit connectable to the detector device, the analyzer unit capable of comparing required values for quantities of the dialysis solution ingredients with actual values determined by the detector device.
- 8. The dialysis machine as recited in claim 7 further comprising a signaling unit or cutoff device connectable to the analyzer unit.
- 9. The dialysis machine as recited in claim 8 wherein the cutoff device operates mechanically and/or electrically.
- 10. A connector for connecting a storage container with solution ingredients to a dialysis machine, the connector comprising:

an identifier for identifying the storage container.

- 12. The connector as recited in claim 11 wherein the bar code runs circumferentially.
- 13. A method of detecting connection of a solution ingredient storage container comprising the steps of:
  - providing a connector with an identifier;
    connecting the connector to a matching connection, and
    reading the identifier so as to determine a type and a position of the connector.

The connector as recited in claim 10 wherein the identifier includes a bar code.

14. The method as recited in claim 13 wherein the identifier includes a bar code.

15. A method of providing a dialysis solution comprising the steps of: providing a connector with an identifier;

connecting the connector to a solution bag at one end and a mixing chamber at another end;

reading the identifier; and

analyzing a mixture at an output of the mixing chamber so as to compare at least one mixture value to at least one predetermined value.

- 16. The method as recited in claim 15 further comprising providing a second connector with a second identifier and connecting the second connector to the second solution bag at one end and to the mixing chamber at another end.
- 17. The method as recited in claim 15 wherein the reading step results in at least one solution value, the at least one predetermined value being a function of the at least one solution value.
- 18. The method as recited in claim 15 further comprising stopping flow from mixing chamber if the at least one mixture value does not correspond to the at least one predetermined value.
- 19. The method as recited in claim 15 further comprising controlling solution flow to the mixing chamber as a function of the at least one mixture value.